

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte YUN XU, STEPHEN THONG,
GURUSAMY MANNANNAN, and DAVID T. CALLAGHAN

Appeal 2007-4132
Application 10/777,009
Technology Center 1600

Decided: November 14, 2007

Before DONALD E. ADAMS, ERIC GRIMES, and RICHARD M.
LEBOVITZ, *Administrative Patent Judges*.

GRIMES, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims to a method of shaving. The Examiner has rejected the claims as obvious. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

BACKGROUND

The Specification states that “shaving preparations are formulated to enhance shaving performance and improve comfort during shaving, in part by providing lubricity and glide and thereby reducing the friction between the razor cartridge and the user’s skin. Some shaving preparations include

water-insoluble particles to enhance the performance of the preparations” (Specification 1). The Specification also states that “US 5,587,156 discloses shaving preparations that contain water-insoluble particles, e.g., polytetrafluoroethylene (PTFE) particles, in an effective amount to produce physical micro-support for the blade during shaving, which is said to prevent nicks and cuts” (*id.*).

The Specification also states that “the lubricity and glide provided by a shaving preparation can be significantly improved by including water-insoluble lubricating polymer particles that include polytetrafluoroethylene (PTFE) in the shaving preparation” and that “[l]ubricity and glide are generally improved by including in the shaving preparation one or more water soluble polymers” (*id.* at 2).

DISCUSSION

1. CLAIMS

Claims 1-13 and 32 are pending and on appeal. Dependent claims 2-13 have not been argued separately and therefore stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(vii).

We will focus on claims 1 and 32, which are representative and read as follows:

Claim 1. A method of shaving comprising applying to an area of skin a shaving composition and shaving said area of skin,
wherein the shaving composition comprises an aqueous solution including a cleansing or conditioning agent for hair or skin, water-insoluble lubricating polymer particles comprising polytetrafluoroethylene, and a water soluble polymer,
the shaving composition being substantially free of anionic polymers and

the lubricating polymer particles and water soluble polymer being present in a ratio of about 0.1:1 to about 10:1.

Claim 32. A method of shaving comprising applying to an area of skin a shaving composition and shaving said area of skin, wherein the shaving composition comprises an aqueous solution including a cleansing or conditioning agent for hair or skin, from about 0.005% to 2% of water-insoluble lubricating polymer particles comprising polytetrafluoroethylene, and a water soluble polymer, the shaving composition being substantially free of anionic polymers.

2. PRIOR ART

The Examiner relies on the following references:

Wdowik	US 5,587,156	Dec. 24, 1996
Dodd	WO 02/087519 A2	Nov. 7, 2002

3. OBVIOUSNESS

Claims 1-13 and 32 stand rejected under 35 U.S.C § 103 as obvious over Wdowik in view of Dodd. The Examiner relies on Wdowik for disclosing shaving compositions (and methods of using them) that comprise a cleansing agent and an insoluble particulate additive (Answer 3). The Examiner finds that Wdowik discloses that the insoluble particulate additive can comprise polytetrafluoroethylene and can be added to the shaving composition in an amount of about 0.1% to about 20% (*id.*).

Thus, the Examiner finds that Wdowik describes a composition that comprises a cleansing agent and PTFE particles as recited in claims 1 and 32, but not a water-soluble polymer.

The Examiner relies on Dodd for teaching shaving compositions that comprise a water-soluble polymer; specifically, a natural or synthetic gum

water-soluble polymers (*id.* at 4). The Examiner further finds that Dodd teaches that “it is beneficial to add polyethylene oxide and natural or synthetic gum water-soluble polymers to a shaving composition because they ‘interact synergistically to substantially increase the stress ratio of the shaving composition, thereby reducing the coefficient of friction between the cartridge and the razor’” (*id.*).

The Examiner concludes that one of ordinary skill in the art would have been motivated to add polyethylene oxide and natural or synthetic gum water soluble polymers to the composition taught by Wdowik, because Dodd teaches that the addition of polyethylene oxide and natural or synthetic gum water soluble polymers to a shaving composition enhances shaving performance (*id.* at 4-5).

We conclude that the Examiner has set forth a prima facie case that the claims would have been obvious to the ordinary artisan. Wdowik teaches shaving compositions that include, among other things, at least one cleansing agent and at least one insoluble particulate additive (Wdowik, abstract). Wdowik also teaches that the insoluble additive, by providing microsupport for the blade of the razor parallel to the skin surface and above surface irregularities, provides “improved razor blade guide” and other shaving performance benefits (*id.*).

Wdowik further teaches that shaving compositions described in the prior art include additives which enhance lubrication, including water soluble polymeric materials of up to five percent by weight such as polyvinylpyrrolidone (PVP) or polyethylene oxide (*id.* at col. 1, ll. 55-62).

Dodd describes shaving compositions that comprise one or more water soluble polymers to increase lubricity and enhance shaving performance (Dodd, p. 1, ll. 4-7). Dodd states that “[a] particularly advantageous combination of polymers which may be utilized in shaving compositions includes polyethylene oxide and a water soluble natural or synthetic gum” and that “polyethylene oxide and natural or synthetic gum ... interact synergistically to substantially increase the stress ratio of a shaving composition, thereby reducing the coefficient of friction between the razor cartridge and the skin” (*id.* at 5, ll. 2-7).

We agree with the Examiner that it would have been prima obvious to one of ordinary skill in the art to combine the water-soluble polymer taught by Dodd with the shaving composition taught by Wdowik. The resulting composition would comprise a cleansing agent, PTFE particles, and a water-soluble polymer, as recited in claims 1 and 32.

We also agree with the Examiner that the amounts and ratios recited in claims 1 and 32 would have been obvious. With respect to claim 32, Wdowik teaches that addition of insoluble particulate additives in an amount of “about 1% to about 10%, by weight is normally preferred” (Wdowik, col. 3, ll. 34-36). Claim 32 recites “about 0.005% to 2%” of PTFE particles. The claimed range therefore overlaps with the prior art range. “[W]here there is a range disclosed in the prior art, and the claimed invention falls within that range, there is a presumption of obviousness.” *Iron Grip Barbell Co. v. USA Sports*, 392 F.3d 1317, 1322 (Fed. Cir. 2004).

Likewise, the PTFE:polymer ratios recited in claim 1 (0.1:1 to 10:1) overlap with the range suggested by the prior art. Specifically, Wdowik

teaches that about 1% to about 10% by weight of PTFE particles is preferred (Wdowik, col. 3, ll. 34-36), while Dodd teaches that 0.1 to 5% by weight of water soluble polymer is preferred (Dodd, p. 5, ll. 34-36). Thus, the references suggest ratios of PTFE:polymer ranging from 1:5 (or 0.2:1) to 10:0.1 (or 100:1). Again, the claimed range (0.1:1 to 10:1) overlaps with the prior art range (0.2:1 to 100:1) and the presumption of obviousness applies.

We agree with the Examiner that the teachings of Wdowik and Dodd would have made obvious the compositions defined by claims 1 and 32.

Appellants argue that a prima facie case of obviousness has not been established since there would have been no motivation to combine the disclosures of Wdowik and Dodd to impart improved lubricity and glide (App. Br. 5).

We are not persuaded by this argument. “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1739 (2007). “[W]hen the question is whether a patent claiming the combination of elements of prior art is obvious,” the relevant question is “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.* at 1740.

As discussed above, Wdowik discloses that the particulate additives, such as PTFE as recited in claims 1 and 32, by providing microsupport for the blade of the razor parallel to the skin surface and above surface irregularities, provide *improved razor blade guide* and other shaving performance benefits. Wdowik also teaches that water-soluble polymers (e.g., polyoxyetylen and PVP) may be added to shaving compositions for

lubricity. Dodd describes shaving compositions which comprise one or more water soluble polymers to increase lubricity and enhance shaving performance. The combination of the particulate additives described in Wdowik with the soluble polymers of Dodd appears to be nothing more than the combination of old elements for their expected function to yield predictable results.

“In determining whether the subject matter of a patent claim is obvious, neither the particular motivation nor the avowed purpose of the patentee controls. . . . [A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *KSR*, 127 S. Ct. at 1741-42. The cited references would have suggested including PTFE particles in a shaving composition in order to gain the benefits taught by Wdowik, and therefore support a prima facie case of obviousness.

Appellants further argue that the disclosures of Wdowik and Dodd fail to suggest the ratio of lubricating polymer particles to water soluble polymer recited in claim 1 of “about 0.1:1 to about 10:1” (App. Br. 6).

We are not persuaded by this argument. As discussed above, the range of PTFE:polymer ratios recited in claim 1 overlaps with the range suggested by the prior art. “[W]here there is a range disclosed in the prior art, and the claimed invention falls within that range, there is a presumption of obviousness. But the presumption will be rebutted if it can be shown: (1) That the prior art taught away from the claimed invention, *In re Geisler*, 116 F.3d 1465, 1471 (Fed. Cir. 1997); or (2) that there are new and unexpected results relative to the prior art, *In re Woodruff*, 919 F.2d 1575, 1578 (Fed.

Cir. 1990).” *Iron Grip Barbell Co. v. USA Sports*, 392 F.3d 1317, 1322 (Fed. Cir. 2004).

Appellants argue that

Wdowik discloses a broader range of particulate incorporation than that cited by the Examiner—less than 0.1% to even as high as 90% or greater (see column 3, lines 36-40)—and that this extremely broad range of incorporation provides no guidance whatsoever to the skilled artisan for combining with water soluble polyers in a particular ratio.

(Br. 6.)

It is true that Wdowik discloses that “in thick pastes and gels even as high as 90% or greater [PTFE particles] may be used” (Wdowik, col. 3, ll. 39-40), but it also states that 1% to 10% by weight is normally preferred. In any event, the PTFE:polymer ratios suggested by the references overlaps the range of ratios recited in claim 1, no matter what upper limit of PTFE particles is taught by Wdowik. Appellants have not shown that the prior art taught away from the ranges recited in the claims or that use of PTFE and polymer in those ranges provides unexpected results. Therefore, the presumption of obviousness has not been rebutted.

Appellants further argue that Wdowik and Dodd fail to teach a shaving composition that is “substantially free of anionic polymers” (App. Br. 7). In particular, Appellants argue that, although each of Wdowik and Dodd include a statement that various modifications can be made to their respective disclosures without departing from the scope of the invention, neither Wdowik nor Dodd state that such modifications should avoid substantial employment of anionic polymers (*id.*).

We are not persuaded by this argument. It is true that neither Wdowik or Dodd expressly suggest that their shaving compositions should be “substantially free of anionic polymers” as recited in claims 1 and 32, but the prior art need not expressly suggest an invention in order to have made it obvious. “[T]he ‘motivation-suggestion-teaching’ test asks not merely what the references disclose, but whether a person of ordinary skill in the art, possessed with the understandings and knowledge reflected in the prior art, and motivated by the general problem facing the inventor, would have been led to make the combination recited in the claims.” *In re Kahn*, 441 F. 3d 977, 988 (Fed. Cir. 2006). *See also KSR*, 127 S. Ct. at 1741 (The obviousness analysis “can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.”); *Dystar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1367 (Fed. Cir. 2006) (The “suggestion test is in actuality quite flexible and not only permits, but requires, consideration of common knowledge and common sense.”).

Neither Wdowik nor Dodd suggest that an anionic polymer is a necessary, or even desirable, component of the disclosed shaving compositions; the references are simply silent with respect to anionic polymers. In addition, Wdowik exemplifies two shaving compositions, Example 1 and Example 2, that do not contain anionic polymers and thus are “substantially free of anionic polymers” as recited in claims 1 and 32. Thus, one of skill in the art would have considered shaving compositions that are “substantially free of anionic polymers” to be obvious based on the references because there is no teaching in either Wdowik or Dodd which

would have led one of ordinary skill in the art to have necessarily included them.

SUMMARY

The Examiner's position is supported by the preponderance of the evidence of record. We therefore affirm the rejection of claims 1-13 and 32 under 35 U.S.C. § 103.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

Ssc:

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